

VERNONIA GEORGIANA, A NEW SPECIES RELATED TO
V. OLIGOPHYLLA.

H. H. BARTLETT.

BOTANISTS in the southeastern States must have often observed the close similarity which *Elephantopus tomentosus* bears to *Vernonia oligophylla* when both are in the rosette stage. Indeed, at the outset of my own collecting in Georgia, I failed to distinguish the two plants until I had seen both in flower. In the pine barrens of McDuffie County there are three species of *Elephantopus*, — *E. carolinianus*, with the leaves all ovate and all alike, *E. nudatus* with lanceolate leaves forming a basal rosette, and much reduced or bracteiform cauline leaves, and *E. tomentosus* with a basal rosette of ovate or oblong leaves and the stem usually scapiform. The close similarity of *Vernonia oligophylla* to *Elephantopus tomentosus* had struck me so forcibly that when I found a third kind of rosette in the pine barrens, with narrowly lanceolate, acute leaves, I passed it by as *Elephantopus nudatus*. Until last summer, I did not find this third rosette in flower, and then, to my surprise and pleasure, it proved to be a species of *Vernonia*, very closely allied to *V. oligophylla*. In its rosette of large basal leaves *Vernonia oligophylla* has heretofore been held unique among our iron-weeds. This character it holds in common with the newly discovered plant.

On account of the well-known tendency of the *Vernoniae* to hybridize, it occurred to me that I might have found a hybrid between *V. oligophylla* and some other species. The idea seemed the more plausible because one of my *Vernoniae* from the same region is thought by Dr. Gleason to be a hybrid between two such diverse species as *V. noveboracensis* and *V. angustifolia*. *Vernonia angustifolia* is sometimes associated with *Vernonia oligophylla*, although as a general rule it grows in much drier soil. I was unable to see that there was any clear evidence of the problematic plant, described below as *Vernonia georgiana*, having had a hybrid origin from these two species. In *Vernonia angustifolia* the pappus is tawny, in *V. oligophylla* it is whitish. In a hybrid we should expect the color character of the former species to be dominant, whereas in *Vernonia georgiana* the pappus is exactly the same as in *V. oligophylla*.

Vernonia georgiana sp. nov. Herba erecta, simplex vel parte superiore ramosa, 2-10 dm. alta. Caulis vel viridis vel purpureus, striatus, puberulus. Folia dimorpha; inferiora 7-8 lanceolata, 5-15 cm. longa, 1-2 cm. lata, sessilia, basi valde angustata, acuta vel obtusa, denticulata, supra scabra, subtus puberula; caulinea angustiora linearia, superne bracteiforma. Inflorescentia laxa, capitulis campanulatis pedicellatis. Involucrum ca. 28-florum, 6-7 mm. altum, squamis glabris vel obscurissime ciliatis, interioribus appressis, exterioribus quam interioribus multo brevioribus, apice paulum patentibus. Achenia sulcata pubescentia, pappi setulis pallide stramineis.—Type, *Bartlett 1730*, pine barrens of the fall line sand-hills, vicinity of Thomson, McDuffie Co., Georgia, 10 Aug. 1909.

Vernonia georgiana is easily distinguished from *V. oligophylla*, with which it grows, by the much narrower leaves, fewer flowered involucre (flowers about 28 in *V. georgiana*, more than 40 in *V. oligophylla*) and by the less spreading and much shorter outer involucral scales. It is known to me only from the one locality.

BUREAU OF PLANT INDUSTRY, Dept. of Agriculture,
Washington, D.C.

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